

Our Ref: LLT-259-B



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Dennis Joseph Denen, Neil P. Young, Gary L. Moreau  
Serial No.: 09/702,466  
Filing Date: October 31, 2000  
Examiner/Art Group Unit: Leykin/2837  
Title: CONTROL AND MOTOR ARRANGEMENT FOR  
USE IN MODEL TRAIN

APPEAL BRIEF

BOX AF  
Assistant Commissioner of Patents  
Washington, D.C. 20231

Sir:

Please enter the following Appeal Brief in the appeal filed September 25, 2002.

REAL PARTY IN INTEREST

The real party in interest is Lionel, L.L.C., a corporation duly organized and existing under the laws of the State of New York and having a principal place of business at 50625 Richard West Boulevard, Chesterfield, MI, 48843, as a result of an assignment, a copy of which is attached hereto.

RELATED APPEALS AND INTERFERENCES

There are no related Appeals or Interferences in the present application.

STATUS OF CLAIMS

Claims 18-35 are pending in the application. Claims 26-32, 34 and 35 stand allowed. Claim 25 stands objected to. Claims 18-24 and 33 stand rejected under 35 U.S.C. § 103(a) over Young et al., U.S. Patent No. 5,555,815, in view of Melocik et al., U.S. Patent 4,567,757. The language of the current claims on appeal is attached as Appendix A.

STATUS OF AMENDMENTS

All amendments in the present application have been entered.

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### SUMMARY OF THE INVENTION

The present invention provides a control and motor arrangement for a model toy train. The model toy train includes a motor which provides the propelling force for the train. A transducer is positioned to provide rotational position information from the motor, that information being characteristic of the rotational position of the train wheels. A control arrangement is provided which receives the rotational information. The control arrangement is configured and arranged to cause power to be applied to the motor at different times based on at least the rotational information provided by the transducer.

Further aspects of the invention are set forth in the preferred embodiment and claimed in allowable claims 26-32 and 35.

### ISSUES ON APPEAL

The issue presented for appeal is whether claims 18-25 and 33 patentably define over Young et al., U.S. Patent No. 5,555,815, in view of Melocik et al., U.S. Patent 4,567,757.

### GROUPING OF CLAIMS

The claims do **not** all stand or fall together. Claims 18-24 stand or fall together and claims 33 and 35 stand or fall together.

### ARGUMENT

It is respectfully submitted that the Examiner has not established a *prima facie* case of obviousness based on Young et al., U.S. Patent No. 5,555,815 and Melocik et al., U.S. Patent No. 4,567,757 to support a rejection of Appellants' invention as set forth in claims 18-25 under 35 U.S.C. § 103(a).

The Examiner's rejection is defective for two reasons. The first is that the Examiner has mis-described the Young et al. reference in making the rejection. The second is that the Examiner provides no teaching or suggestion to combine the teachings from Young et al. with Melocik et al. to render the claims obvious.

Claims 18-25 are directed to a control and motor arrangement for a model toy train and claim 18 recites that the control arrangement is arranged to cause power to be applied to the motor at different times based on at least the rotational information provided by the transducer.

The Examiner states that Young et al. teach "a backup power source 21 such as a battery. This source of power can be utilized when track power is removed. The battery 21 is used for a short period of time in response to the rotational signal." See Paper No. 12 at p. 4, ll. 6-8. The Examiner has acknowledged that Young et al. does not teach or suggest a control arrangement as recited in claim 18. See Paper No. 12, p. 4, ll. 18-20. The Examiner states Melocik et al. teaches a processor operable to receive wheel rotational signals and determine "the degree of rotation of the wheels during at least a predetermined portion of period of time that the traction motor is energized." See Paper No. 12, p. 5, ll. 1-3. The Examiner implicitly asserts that the traction motor 52 of Melocik et al. corresponds to the motor recited in claim 18, the transducer means 40 corresponds to the transducer recited in claim 18, and the processor means 54 corresponds to the control arrangement recited in claim 18.

The Examiner's statement that the battery of Young et al. is used for a short period of time in response to the rotational signal is wrong. The Young et al. reference teaches that the backup battery power source is utilized in response *to the removal of track power*. See Young et al. at col. 3, ll. 48-51. While the Young et al. reference does disclose a speed sensor 30, the Young et al. reference is specific in that the speed sensor 30 can provide an input to a microcontroller to select and produce a sound. See Young et al. at col. 3, ll. 51-54. The Young et al. reference provides no connection between the speed sensor 30 and utilization of the battery 21 to provide power to the track. Indeed it is respectfully submitted that the Examiner's erroneous supposition is illogical. Under the Examiner's supposition the battery would be applied in the event that the train slowed down. This would not necessarily coincide with the loss of track power insofar as the user may intentionally slow the train down by decreasing power at the transformer.

The mis-description of Young et al. renders the rejection improper insofar as Melocik et al. does not provide any teaching that power is applied to the motor at different times based on at least the rotational information provided by the transducer. The Examiner has not identified a teaching or suggestion in Melocik et al. such that the processor means 54 causes power to be applied to the traction motor 52 at different times based on at least the rotational

information provided by the transducer means 40. The apparatus and method of Melocik et al. relates to brake testing. Melocik et al. state that the

processor means receives wheel rotation signals produced by transducer means and determines the degree of rotation of the vehicle wheel during a predetermined portion of the predetermined period of time. Finally, the processor means produces a brake status signal in response to the determined degree of rotation of the vehicle wheels.

See Melocik et al. col. 2, ll. 9-16. Melocik et al. goes on to explain:

The vehicle includes a source of motive power, a traction motor controllably connected to the power source and to at least one vehicle wheel, a vehicle brake associated with at least one vehicle wheel, and a wheel rotation transducer connected to at least one vehicle wheel. The method comprises the steps of engaging the vehicle brake and supplying a predetermined modulated amount of power from the power source to the traction motor to produce a predetermined amount of motor torque. First and second wheel rotation signals from the wheel rotation transducer are received and stored at first and second predetermined times. The stored first and second wheel rotation signals are then used to calculate the angle through which the vehicle wheel rotates during the interval between receiving the first and second wheel rotation signals.

The power applied to the traction motor of Melocik et al. *is not based* on the rotation signals produced by the transducer means 40.

To establish *prima facie* obviousness of a claimed invention, *all* of the claim limitations must be taught or suggested by the prior art. In re Toyka, 490 F.2d 981, 180 U.S.P.Q. 2d 580 (CCPA 1974); MPEP § 2143.03 (emphasis added). In the present matter, the Examiner has not identified a control arrangement which can cause power to be applied to the motor at different times based upon rotational information as recited in claim 18. It is therefore submitted that claim 18 patentably defines over the references and the Examiner's rejection should be reversed. Claims 19-25 depend from claim 18 and therefore also patentably define over the references. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); MPEP § 2143.03.

Further, the Examiner provides no teaching or suggestion to combine the Young et al. and Melocik et al. references. Indeed neither of these references include the recitation of claim 18 that the controller can cause power to be applied to the motor at different times based upon rotational information indicative of the speed of the train. For this additional reason, it is respectfully submitted that the Examiner has not established a *prima facie* case of obviousness to support the rejection of Appellants' invention as set forth in claims 18-25.

Claim 25 stands objected to under 35 U.S.C. § 112 as including allowable subject matter. Appellants submitted claim 33 which corresponded to claim 25 but the Examiner nonetheless rejected claim 33. Since the Appellants desire to keep claim 25 as a dependent claim Appellants have grouped claim 25 with claim 18 for purposes of this argument.

Appellants respectfully request the Examiner's rejection of claims 18-25 be reversed.

#### Claim 33

Claim 33 corresponds to claim 25 in that both claims recite a control arrangement configured and arranged to, in response to a train start command, gradually supply power to the motor. Claim 25 has been objected to by the Examiner. Claim 33 was rejected in the Office Action, apparently without review. Appellants submit that since the Examiner has already indicated that claim 25 includes allowable subject matter, claim 33 must also include allowable subject matter since both claims recite a control arrangement configured and arranged to gradually supply power to the motor. It is further submitted that claims 25 and 33 are independently patentable of claim 18 and should be allowed.

For this reason it is respectfully submitted that the Examiner has not established a *prima facie* case of obviousness to support the rejection of Appellants' invention as set forth in claim 33. Appellants respectfully request that the Examiner's rejection of claim 33 be reversed.

#### CONCLUSION

For the reasons stated above, it is respectfully submitted that Appellants' invention as set forth in claims 18-25 and 33 patentably define over the cited references and is not suggested or rendered obvious thereby. As such, it is respectfully submitted that the

Examiner's final rejection of claims 18-24 and 33 is erroneously based and its reversal is respectfully requested.

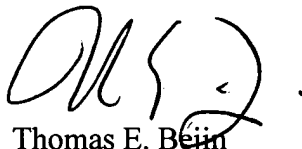
No oral hearing is requested.

Appellants' attorney's check in the amount of \$370.00 is enclosed to cover the Appeal Brief filing fee plus a One-Month Extension of Time.

This Appeal Brief is being filed in triplicate including one original and two copies.

Respectfully submitted,

YOUNG & BASILE, P.C.

A handwritten signature in black ink, appearing to read 'T. Bejin', with a stylized flourish at the end.

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Attorney for Applicants  
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Dated: December 11, 2002  
TEB/rcm/sld

APPENDIX A  
CLAIMS AT ISSUE IN APPEAL

18. (Amended) A control and motor arrangement for a model toy train comprising:

a motor, configured and arranged to generate a locomotive force for propelling a model train;

a transducer operative in providing rotational position information from the motor, the rotational position information being characteristic of rotational position of the train wheels at which the motor is operating;

a control arrangement, coupled to the transducer to receive rotational information and configured and arranged to cause power to be applied to the motor at different times based on at least the rotational information provided by the transducer.

19. A control and motor arrangement, according to claim 18 wherein the control arrangement is configured and arranged to adjust an amount of power supplied to the motor in response to changes in the information received from the transducer.

20. A control and motor arrangement, according to claim 18, wherein the information received from the transducer is provided to a sound control arrangement.

21. A control and motor arrangement, according to claim 20, wherein the sound control arrangement is configured and arranged to select a sound effect for playing as a function of the information received from the transducer.

22. A control and motor arrangement, according to claim 18, wherein the control arrangement is configured and arranged to simulate effects relative to inertia.

23. A control and motor arrangement, according to claim 22, wherein the control arrangements configured and arranged to, in response to power, being removed from the model train, supply power to the motor from an alternate power source.

24. A control and motor arrangement, according to claim 23, wherein the alternate power source comprises a battery arrangement.

25. A control and motor arrangement, according to claim 22, wherein the control arrangement is configured and arranged to, in response to a train start command, gradually supply power to the motor.

33. A control and motor arrangement for a model toy train comprising:  
a motor, configured and arranged to generate a locomotive force for propelling a model train;

a transducer operative in providing rotational position information from the motor, the rotational position information being characteristic of rotational position of the train wheels at which the motor is operating;

a control arrangement, coupled to the transducer to receive rotational information and configured and arranged to cause power to be applied to the motor at different times based on at least the rotational information provided by the transducer;

the control arrangement being configured and arranged to simulate effects relative to inertia and the control arrangement is configured and arranged to, in response to a train start command, gradually supply power to the motor.



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**ASSIGNMENT**  
**(Joint Inventors)**

WHEREAS, We, Dennis Joseph Denen, Neil P. Young, and Gary Louis Moreau (hereinafter referred to as Assignors), residing at 1167 Oak Bluff Court, Westerville, OH 43081, 3240 Bear Gulch Road, Redwood City, CA 94062, and 929 Loggers Circle, Rochester, MI 48307, have invented new and useful improvements in:

**CONTROL AND MOTOR ARRANGEMENT FOR USE IN MODEL TRAIN**

which is set forth in an application for Letters Patent in the United States executed on even date herewith;

AND WHEREAS, Lionel, LLC, (hereinafter referred to as Assignee), of 50625 Richard W. Blvd., Chesterfield, Michigan 48051, is desirous of acquiring the entire right, title and interest in and to said invention and said application for Letters Patent of the United States, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon:

NOW, THEREFORE, be it known by all whom it may concern, that for and in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, the Assignors have assigned, sold and set over, and by these present assigns, sells and sets over unto the Assignee, its successors, legal representatives and assigns, for the territory of the United States of America and all foreign countries, the entire right, title and interest in and to said invention, said application for Letters Patent, including the right to file foreign patent applications corresponding to said application, and the right to claim the priority date of said United States patent application and any legal equivalents thereof, and any and all Letters Patent or Patents in the United States of America and all foreign countries which may be granted therefor and thereon, and to any and all divisions, continuations, and continuations-in-part of said application, or re-issues or extensions of said Letters Patent or Patents prepared and executed by Assignors on even date herewith, the same to be held and enjoyed by the Assignee, as fully and entirely as the same would have been held by the Assignor had this Assignment and sale not been made.

AND the Assignors hereby covenant and agree that the Assignors will at any time upon the request and at the expense of the Assignee execute and deliver any and all papers and do all lawful acts that may be necessary or desirable to perfect the title to said invention and to obtain Letters Patent therefor, and the Assignor hereby authorize and requests the Commissioner of Patents to issue said Letters Patent to the Assignee in accordance with this Agreement.

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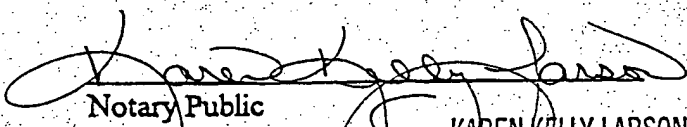
IN TESTIMONY WHEREOF, I hereunto set my hand and affix my seal at  
Fitch Inc, in the State of Ohio, this 13<sup>th</sup> day of  
November, 1998.

  
Dennis Joseph Denen

STATE OF Ohio )

COUNTY OF Franklin )

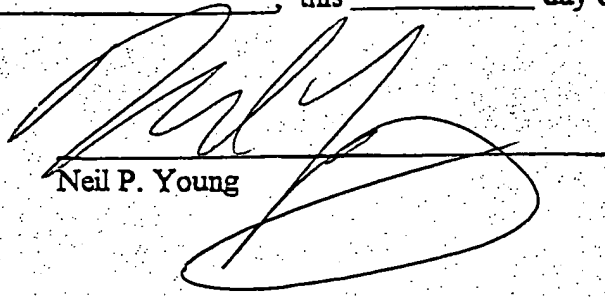
Before me personally appeared said Dennis Joseph Denen and acknowledged the foregoing instrument to be his own free act and deed, this 13 day of November, 1998.

  
Notary Public

KAREN KELLY LARSON  
NOTARY PUBLIC, STATE OF OHIO  
MY COMMISSION EXPIRES SEPT. 29, 2003

SEAL

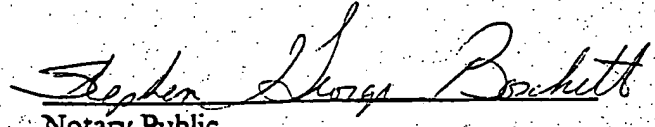
IN TESTIMONY WHEREOF, I hereunto set my hand and affix my seal at  
\_\_\_\_\_, in the State of \_\_\_\_\_, this \_\_\_\_\_ day of \_\_\_\_\_, 1998.

  
Neil P. Young

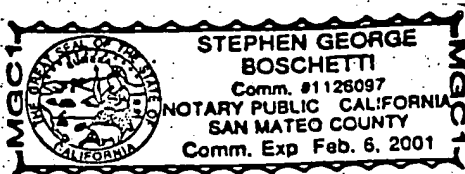
STATE OF CALIFORNIA )

COUNTY OF San Mateo )

Before me personally appeared said Neil P. Young and acknowledged the foregoing instrument to be his own free act and deed, this 30 day of November 1998, 1998.

  
Notary Public

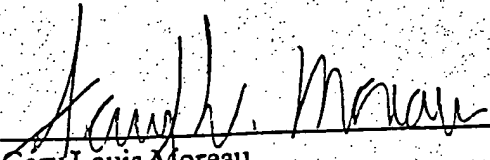
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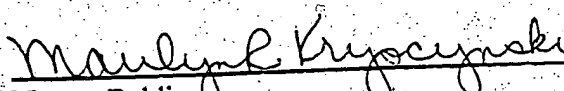
IN TESTIMONY WHEREOF, I hereunto set my hand and affix my seal at

\_\_\_\_\_, in the State of \_\_\_\_\_, this \_\_\_\_\_ day of \_\_\_\_\_, 1998.

  
\_\_\_\_\_  
Gary Louis Moreau

STATE OF Michigan;  
COUNTY OF Macomb;

Before me personally appeared said \_\_\_\_\_, and acknowledged the foregoing instrument to be his own free act and deed, this 4<sup>th</sup> day of November, 1998.

  
\_\_\_\_\_  
Notary Public **MAFILYN R. KRYSCYNSKI**  
Notary Public, Macomb County, MI  
My Commission Expires June 26, 1999

SEAL

Please address all correspondence and telephone calls and, upon recordation, please return this document to:

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